

CS 6504: Advanced Networking

Homework #1

Due: Tuesday, September 4 at the *start* of class

Textbook:

High Performance TCP/IP Networking: Concepts, Issues, and Solutions
Mahbub Hassan and Raj Jain
ISBN 0-13-064634-2

1. Chapter 1, Review Question #4
2. Chapter 1, Review Question #5
3. Chapter 1, Review Question #6
4. Chapter 1, Review Question #8
5. Chapter 1, Review Question #10
6. Chapter 1: Identify a major terminology error in the chapter.
7. Chapter 2, Review Question #1
8. Chapter 2, Review Question #3
9. Chapter 2, Review Question #5
10. Chapter 2, Review Question #7
11. Chapter 2, Review Question #9
12. Chapter 2, Review Question #10
13. Explain *why* pushing TCP/IP protocol processing into the network interface card (NIC) may be dangerous.
14. Explain exactly how the destination node of a TCP connection can advertise a window (awnd) that is 132,000 bytes in size.
15. Discuss the advantages and disadvantages of source routing versus IP routing.
16. Go to the TOP500 List at <http://www.top500.org/> and find out what percentage of the list is made up of certain types of interconnects, e.g., X% Gigabit Ethernet, Y% Myrinet, and so on.